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ABSTRACT

The thesis that intelligence is based on heredity was dramatically revived in 1969 by an article in the "Harvard Educational Review" by Arthur Jensen, a psychologist at the University of California at Berkeley. The article, which received wide attention, was sharply criticized by those who hold that it is environment rather than genes which puts populations at a disadvantage. The materials assembled for this bibliography have been selected (from numerous published materials on the subject) to represent as many points of view and scientific disciplines as have made themselves known since Jensen's article. To preserve the sequence of the debate, we have maintained in each section a chronological order. Two predecessors of Jensen, Young and Dobzhansky, are included as examples of earlier theorists who deal with some aspects of genetics. In attempting to arrange and classify the points of view, we have found many works which elude hard and fast categorization. This accounts for some seemingly arbitrary decisions of ours, and for the fact that the largest section includes those writers who consider intelligence to be a complex amalgam of both heredity and environment--the "synthesizers." One thing is clear--no one discipline (psychology, sociology, or even genetics) can be linked to a strict hereditarian or a strict environmentalist approach. This will be apparent from the identification of the author (as he was when he wrote) which follows each entry. The index lists authors and publications. (Author/JM)

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The New Environment-Heredity Controversy: A Selected Annotated Bibliography

by

Geraldine Rosenfield and Howard Yagerman

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INTRODUCTION

Implications of Genetics for Education

A world-wide survey of 19 countries released last spring by the International Association for the Evaluation of Educational Achievement[1] concluded that home background was the most important factor in a pupil's educational success. This parallels the finding of the 1966 United States study by James S. Coleman,[2] which concluded that family background and the presence of classmates from more prosperous families had a greater effect on the school achievement of poor children than the physical equipment or personnel of the school.

The International Association's survey dealt directly with school systems, measuring educational levels and achievement, and not with the more sensitive question of inherited intelligence and its relation to educational achievement.

On the whole, scientists and educators had refrained from asking this question for several decades, beginning with the Nazi application of racial criteria. It is largely because of Nazi racism that most social scientists, and perhaps Jews more than others, have been cool to theories of genetic

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1. New York Times, May 27, 1973, Sec. IV, p. 9.

2. James S. Coleman and others, Equality of Educational Opportunity, Washington: Office of Education, U. S. Department of Health, Education and Welfare, 1966.

inheritance of intelligence. In the fifties, when liberals were pressing for civil rights and integration in American schools, the American Jewish Congress released a statement, signed by 18 noted social scientists[3] and reaffirming earlier pronouncements by scientific bodies, that "observable differences among various racial and national groups may be adequately explained in terms of environmental differences," concluding that "fears based on the assumption of innate racial differences in intelligence are not well founded."

The thesis that intelligence is based on heredity was dramatically revived in 1969 by an article in the Harvard Educational Review. Arthur Jensen, a psychologist at the University of California at Berkeley, wrote in the Winter 1969 issue that the genetic endowment of certain populations (white) was inherently better for transmitting cognitive skills than that of other populations (black). He then linked his findings to a critique of compensatory education. The article, which received wide attention, was sharply criticized by those who hold that it is environment rather than genes which puts populations at a disadvantage.

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3. American Jewish Congress press release of statement by 18 social scientists, Oct. 16, 1956.

Interest in the new geneticism, which challenges currently accepted social-scientific dicta and social-policy guidelines, extends beyond the scientific community. Those reacting represent, broadly speaking, two camps, the hereditarians and the environmentalists. The former are accused (by the latter) of being racists and oppressors of the lower classes, while the latter are seen by their opponents as enemies of intellectual freedom, more interested in ideology than in scientific investigation. The debaters confront each other with questions like these: Do we know enough about human genetics to make any judgments about group performance? Is IQ testing a valid form of intelligence measurement? What is the relationship between IQ and social status? Can compensatory education really transform the academic performance of the disadvantaged? Should scientists be permitted to investigate material whose findings may be put to social misuse?

Current developments in the genetic sciences include experimentation with controlled breeding of human beings. In an American Medical Association publication[4] Professor James D. Watson is quoted on cloning, the asexual production of an exact copy of a human being. Watson states that his fellow Nobel laureate, Sir Francis Crick, believes that no child should be

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4. Prism, May 1973, pp. 12-14, 33-34.

declared legally alive until three days after birth, giving the parents (or "society") the right to do away with him if he proves to be defective.

In August 1973 the Committee on Genetics and Society, formed during the 13th International Congress of Genetics taking place in Berkeley, California, conducted a series of forums to consider the possibility that the "new eugenics" would be used to discriminate genetically against certain classes and races. Some members warned that genetic technology might furnish "subtle tools for social control."[5]

All this makes more serious what was already serious enough, the classical environment-heredity controversy.

The Jews and Theories of Heredity

The subject of genetic endowment has long been a source of interest to Jews for reasons of scholarship. Historians have been able to trace migrations of ancient populations by certain genetic diseases and other genetic traits. For example, they have been able to conclude that the presence of similar frequencies of several genetic traits among Ashkenazi, Sephardi, Egyptian, Yemeni, Iraqui, and Persian Jews supports a theory of common descent from the ancient Israelites.[6]

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5. New York Times, August 27, 1973, p. 34.

6. James Greene-Hamilton, "The Use of Genetic Markers in Oriental Jewish Historical Studies," Jewish Quarterly Review, April 1972, pp. 288-313.

Aside from its usefulness as a tool for historical investigation, genetics has been adduced by some to explain Jewish eminence. Lord Snow, the British author and scientist, has said he is prepared to believe that there "is something in the Jewish gene pool which produces talent on quite a different scale from, say, the Anglo-Saxon gene pool...."[7] (He points out that in Eastern Europe the gene pool of the Jews remained undiluted for hundreds of years.)

Of interest at this point is a study done in Brooklyn in 1965,[8] comparing the school readiness of two sets of Jewish children from the same social class and same neighborhood, one Sephardi and the other Ashkenazi, within two blocks of each other. Finding the Ashkenazi children in his sample were significantly better prepared for the intellectual demands of school than the Sephardim, despite a similarity of external environmental factors, Gross concluded that "there exists an unexamined factor beyond those of class, ethnicity, race, and money, that determines academic readiness." Pointing out that although in this study the Sephardi children were of the comfortable American middle class, their level of academic readiness was on a par with that of disadvantaged Sephardim in Israel,

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7. New York Times, April 1, 1969.

8. Morris B. Gross, "Learning Readiness in Two Jewish Groups," Jewish Education, January 1969, pp. 36-48.

he suggests that "the heart of educational deprivation may be lack of internal need or drive, not insufficient opportunity."

In Israel, where the gap between the average Ashkenazi and the average Sephardi background is a major national problem, educators have been deeply concerned about the consistent correlation between low social class, Oriental origins, and educational retardation. In the mid-1960's the Israeli Ministry of Education changed a number of its procedures in order to attempt to raise the educational achievement levels of the disadvantaged children, and professional groups have been doing research and experimentation. The (American) National Council of Jewish Women has set up a Center for Research in Education of the Disadvantaged in collaboration with the School of Education of the Hebrew University. The Henrietta Szold Institute for Research in the Behavioral Sciences, Hadassah-sponsored, has devoted a major portion of its work since 1967 to investigating the educational disabilities of children born into families coming from North Africa and other underdeveloped areas.

Because of American interest in Israeli educational projects for the disadvantaged (some of which have already served as models for American experiments) it is the intention of the authors to collect the data on such studies and issue them as an appendix at a later date.

A Note About the Contents

The materials assembled for this bibliography have been selected (from numerous published materials on the subject) to represent as many points of view and scientific disciplines as have made themselves known since Jensen's article. To preserve the sequence of the debate, we have maintained in each section a chronological order. Two predecessors of Jensen, Young and Dobzhansky, are included as examples of earlier theorists who deal with some aspects of genetics.

In attempting to arrange and classify the points of view, we have found many works which elude hard and fast categorization. This accounts for some seemingly arbitrary decisions of ours, and for the fact that the largest section includes those writers who consider intelligence to be a complex amalgam of both heredity and environment--the "synthesizers."

One thing is clear--no one discipline (psychology, sociology, or even genetics) can be linked to a strict hereditarian or a strict environmentalist approach. This will be apparent from the identification of the author (as he was when he wrote) which follows each entry.

The index lists authors and publications.

THE SUBSTANTIVE DEBATE

The Hereditarians

Under this rubric we include scientists who to a greater or lesser degree accept the notion that intelligence is an inherited genetic trait.

Dobzhanski attests to the biological inheritance of numerous human traits. His work is a fundamental text on genetics, dealing only tangentially with intelligence.

Jensen's conclusions are based on existing data and postulate an 80 per cent genetic influence on intelligence; his writings have started a re-examination of the subject. Others, including Carl Bereiter, Sandra Scarr-Salapatek, and Richard Herrnstein foresee a time when, after environments have been improved, the genetic component of intelligence will assume increasing importance, Bereiter and Herrnstein forecasting a meritocratic caste system. Michael Young is a precursor who writes a satiric sociological projection of a future meritocracy (a term he popularized).

Eysenck and Shockley are convinced that Jensen's studies prove the heritability of intelligence and Shockley is rash enough to offer a genetic solution to social problems.

Bibliography

1. Dobzhansky, Theodosius, The Biological Basis of Human Freedom, New York: Columbia University Press, 1956.

In a "pre-Jensen" book by an eminent geneticist, biological inheritance of human psychic traits is deemed to be scientifically proved but not necessarily immutable. Equality of opportunity for all men is as yet a remote ideal and differences in psychic traits between persons and groups may be ascribed to a large extent to environmental effects; however, as equality is approached genetic differences will loom larger and larger.

Professor of zoology at Columbia University.

2. Young, Michael, The Rise of the Meritocracy. New York: Random House, 1959.

In 1959 British sociologist Michael Young conceived his satire of a new kind of social order in Great Britain based on IQ levels. With tongue in cheek he expands on the idea of an intellectual meritocracy and devises a science-fiction sociological commentary on the way a society would function when "the talented have been given the opportunity to rise to the level which accords with their capacities, and the lower classes consequently reserved for those who are also lower in ability."

The account comes to its end as ominous signs of a revolution are reported. A Populist Party, led

primarily by women, is seeking to overthrow the meritocracy and return to earlier "romantic" principles of "equal opportunity" for all, regardless of IQ. Whether Young's sympathies lie with the meritocrats or populists is hard to say. But as an earlier version of Herrnstein's vision this book is assigned to "hereditarian" status.

Director of the Institute of Community Studies, London, England.

3. Jensen, Arthur R., "How Much Can We Boost IQ and Scholastic Achievement?" Harvard Educational Review, Vol. 39, Winter 1969, pp. 1-124.

Arthur Jensen stunned the educational world by declaring that "compensatory education has failed." He did not actually attack compensatory education but criticized its underpinning assumptions, that removing social deprivation would make the child more receptive to education.

Jensen reviewed much of the extant literature involving the genetic role in the inheritability of IQ and concluded that intelligence is controlled by genes rather than by environment. He estimates that genes determine about eighty per cent of human intelligence, with environment (prenatal and postnatal) contributing twenty. His data show that the black mean IQ is fifteen points (one standard deviation) below the white mean IQ. The inference drawn by most reviewers was that the IQ gap is genetically controlled and inherited.

Professor of educational psychology at the University of California at Berkeley.

4. Bereiter, Carl, "The Future of Individual Differences." Harvard Educational Review, Vol. 39, Spring 1969, pp. 310-318.

Bereiter believes the "heritability of intelligence is unquestionably high" and can be amplified or equalized depending upon the use of technological "tools." However, even in the "future world the overwhelming variable of individual differentiation will be that of intelligence as manifested in the ability to use those tools that make other individual differences irrelevant."

As for whether education (once everyone has access to the tools) can do anything to equalize "effective intelligence," that is a question that we must continue to explore.

Professor of applied psychology at the Ontario Institute for Studies in Education.

5. Jensen, Arthur R., "Reducing the Heredity-Environment Uncertainty." Harvard Educational Review, Vol. 39, Summer 1969, pp. 449-483.

Responding to criticism evoked by his earlier article, Jensen repeats that the effects of dysgenic characteristics work adversely within a democratic society and that it is within the grasp of science to explore if not rectify this populational malady. He also argues against the concept of fixed intelligence, pointing out that only eighty per cent of intelligence is explained by heredity, and that there are differences

in individual natural ability that should be recognized. The focus of compensatory education should be not on equalizing potential among all children but on enhancing each child's chance of achieving his individual potential.

6. Herrnstein, Richard, "IQ." The Atlantic, Vol. 228, September 1971, pp. 43-58ff.

The author reviews the history of IQ testing and its social-policy implications, pointing out that IQ and education are correlated but not identical. IQ and social class are imperfectly correlated and are therefore not causal. He buttresses his hypothesis with data from Louis Terman's seminal study on IQ, adding that "IQ definitely affects income while education may not." He sees the same correlation between success and IQ as between IQ and genes, but admits that the heritability of intelligence has not been adequately tested in a black population.

Jefferson's conception of a natural aristocracy is restated in scientific terms with the postulation that as the environmental disadvantages decrease, the genetic component of intelligence will become a governing factor for success.

Professor of psychology
at Harvard University.

7. Scarr-Salapatek, Sandra, "Race, Social Class, and IQ." Science, Vol. 174, December 24, 1971, pp. 1285-1295.

Dr. Scarr-Salapatek investigated approximately 1,000 twin pairs in Philadelphia and correlated IQ with social class and race. There were two racial (black and white) and three economic (low, middle, high) categories. The study found that "children reared under different conditions show that the percentage of genetic variance and the mean scores are very much a function of the rearing conditions of the population." She concludes that "most" blacks are socially disadvantaged, thus "school-related experience will be proportionately more important to black children than for white children for the development of scholastic aptitudes." It is her opinion that deprivational environments can be done away with and that genetic variability will eventually determine intellectual ability.

Associate professor of school psychology at the University of Minnesota.

8. Eysenck, H. J., The IQ Argument. New York: The Library Press, 1971.

The British psychologist supports Jensen's theory that genetic differences in races are borne out by intelligence test results, and a chapter is devoted to Jensen's hypothesis. The balance of the book includes summaries of current data on race, intelligence and intelligence testing, and Negro intelligence - these

taken in large measure from various studies done by Arthur Jensen and Audrey M. Shuey's The Testing of Negro Intelligence.[9] He suggests that there is some degree of genetic determination of Negro inferiority in IQ and that we are in duty bound to try and set up countervailing environmental pressures to raise Negro IQ levels. He sees the main difficulty as lack of adequate research and knowledge in this subject.

Director of the Institute of Psychiatry and professor of phychology at the University of London.

9. Shockley, William, "Dysgenics, Geneticity, Raceology: A Challenge to the Intellectual Responsibility of Educators." Phi Delta Kappan, Vol. 53, January 1972, pp. 297-307. March 1972, pp. 415-419. Reprinted in: Environment, Intelligence and Scholastic Achievement. Compilation of testimony before U. S. Senate Select Committee on Equal Educational Opportunity, Washington, D. C.: U. S. Government Printing Office, 1972.

Professor Shockley is concerned with "dysgenics," a theory accounting for the difference between the mean black and white IQs. He paraphrases the arguments of Jensen, Herrnstein, and Eysenck, and in addition offers social-policy solutions to the rising incidence of "bad" gene pools.

His eugenic approach to the problem: bonuses to people with IQs below 100 who submit to sterilization.

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9. New York: Social Science Press (Revised edition), 1966.

He cites Denmark as a country which has used genetic control to cut the crime rate.

Professor of engineering sciences at Stanford University and Nobel laureate in physics.

10. Jensen, Arthur R., Genetics and Education. New York: Harper and Row, 1972.

The book includes articles written from 1969 through 1971, including among others, the Harvard Educational Review article on IQ, the study on heritability traits in twins, and his contribution to the Humanist symposium in January 1972.[10] There is a sixty-seven-page preface which recounts in documented detail the controversy and events following the publication of the HER article.

In the chapter titled "IQ's of Identical Twins Reared Apart," Jensen discusses the implications of a heredity-environment study done on identical twins raised in different environments. It was observed that a particular group of identical twins (122 pairs) had very similar IQ scores. The "between-twin" tests showed that the standard deviation was very small (5.2) as compared to the standard deviation of the entire group (14.2). This indicated to Jensen that the genetic component in the twins make-up was the major component in IQ, thus heritability of IQ was very probable.

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10. See item 39.

The Environmentalists

The environmentalist arguments against Jensen's thesis may be described primarily as methodological; sometimes the scientific criticism is linked to the author's personal moral or political inclinations.

Those who criticize his methodology (Light, Smith, Crow, Fehr, Stinchombe, and Morton) cite the small number of twin samples used, the lack of black samples, too little correlation in the samples presented, incorrect classification of socio-economic status of blacks, the impossibility of comparing blacks and whites on any kind of environmental basis.

Deutsch calls Jensen's study an "anti-democratic eugenic" approach and sees the educational recommendations as creating a caste system. Tobach asks whether it is ethical to investigate a problem which does not "respond to the felt needs of the community."

Bibliography

11. Light, Richard J., and Smith Paul V., "Social Allocation Models of Intelligence: A Methodological Inquiry." Harvard Educational Review, Vol. 39, Summer 1969, pp. 484-510.

The main thesis argues that Jensen's conclusions are spurious because the methodologies he uses are not his own but a compendium of extant knowledge on race, intelligence, and heredity. He is also criticized for the small number of twin samples and for the lack of black

twin samples for comparisons. The authors claim that differences within the environment reinforce latent differences between the races and act as feedback which may be construed as genetic variance.

Assistant professor of education and graduate student at the Harvard Graduate School of Education.

12. Crow, James, "Genetic Theories and Influence: Comments on the Value of Diversity." Harvard Educational Review, Vol. 39, Spring 1969, pp. 301-309.

Crow agrees with Jensen's hypothesis on the "possibility" of the inheritance "or transmission" of genetic intelligence. However, he believes that the data available today make it difficult to compare cross-racial intelligence and adds: "It can be argued that being white or being black in our society changes one or more aspects of the environment so importantly as to account for the difference."

Professor of genetics at the University of Wisconsin at Madison.

13. Deutsch, Martin, "Happenings on the Way Back to the Forum: Social Science, IQ and Race Differences Revisited." Harvard Educational Review, Summer 1969, Vol. 39, pp. 523-557.

Deutsch charges that Jensen's article is an anti-democratic eugenic approach to the subject at hand and that specific errors in empirical fact are used to underline racial differences as reflected in intelligence and heredity. He suggests that Jensen was highly selective

in using support material for his hypothesis. Environmental situations may be additive, and the cumulative defects may cause Jensen's difference between blacks and whites.

Jensen's recommendations for education are seen as creating a caste system and condemned for their possible effect on social-policy formation.

Professor of early childhood education at New York University.

14. Fehr, F. S., "Critique of Hereditarian Accounts of 'Intelligence' and Contrary Findings: A Reply to Jensen." Harvard Educational Review, Vol. 39, Summer 1969, pp. 571-579.

There is too little hard evidence on the correlation of intelligence between identical and non-identical twin groups to support such large heredity claims (as Jensen did). Fehr suggests that environment plays a larger role in intelligence capacity than Jensen implies, the studies used by Jensen are seen as offering little basis for his hypothesis.

Research assistant professor of children's psychology at the University of Illinois.

15. Stinchcombe, Arthur L., "Environment: The Cumulation of Effects is Yet to be Understood." Harvard Educational Review, Vol. 39, Summer 1969, pp. 511-522.

Since Jensen did not classify blacks correctly according to socio-economic status (the black middle class, for example, not being equivalent to the white middle class), IQ comparisons are misleading. Environmental

factors are additive and "if one could equalize the amount of fear between races, put blacks in all-white schools or schools with the same conditions, improve the standards of Negro families by a Standard Deviation, then the IQ's would be equalized." It is the author's feeling that black children suffer because their environments do not consistently and sequentially operate to produce successively higher levels of cognitive functioning.

Professor of sociology at the University of California at Berkeley.

16. Morton, N. E., "Human Behavioral Genetics." In: Genetics, Environment, and Behavior.[11] (Lee Ehrman, Gilbert S. Ommen, and Ernst Caspari, eds.). New York: Academic Press, 1972, pp. 247-265.

Morton contests the notion that evidence regarding heritability of intelligence in relatives leads to the conclusion that group performance on intelligence tests is inherited. He also contends (1) that the environments which produce human beings are not random and therefore the Jensen heritability estimate (based on random selection) is not valid and (2) that heritability is not relevant to educational strategy.

Professor of genetics at the University of Hawaii.

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11. Book is derived from a workshop on "Genetic Endowment and Environment in the Determination of Behavior" conducted in October 1971 by the Committee on Basic Research in Education (established by the U. S. Office of Education, the National Academy of Sciences, and the National Academy of Education).

17. Tobach, E. "The Meaning of the Crypthanthroparion." In: Genetics, Environment, and Behavior. (Lee Ehrmann, Gilbert S. Omenn, and Ernst Caspari, eds.) New York: Academic Press, 1972, pp. 219-239.

The principal argument here is that the study of a "static" genotype (genetic component of human organism) and its interaction with the environment does not answer any questions, since genotypes change with environments.

Tobach also explores an ethical question: because of limited resources shouldn't the "logistical" strategy be to seek out research which responds to felt needs in the community? He sees the scientist's work as a "part of human culture, as ideas, inferences, theories, and basis for societal action, [and] the scientist [as] but one participant in the societal process of decision making."

Curator of the Department of Animal Behavior, American Museum of Natural History, New York City.

The Synthesizers

The bulk of the response to Jensen reflects a blend of social-science theories, some contradictory and some supportive of his views.

Several of the arguments (De Fries, Hunt) dispute Jensen's assignment of so large a genetic component to intelligence, although a number agree (Jencks, Erlenmeyer-

Kimling, Dobzhansky) it is an important factor. Other variables, such as socioeconomic status, family, geographic location, diet, and attitudes of other racial or ethnic groups, (Zach, Jencks, Dobzhansky) are said to have equal or greater effect on intelligence performance.

A number of critics (De Fries, Bodmer, Cavalli-Sforza) deplore the extrapolation of data to compare different groups (black and white), or to compare similar groups from different environments (Bodmer, Cavalli-Sforza). Others counter the claim that blacks have lower IQs than whites of the same socioeconomic level with studies proving equal performance (Gottesman, Mercer, Brown).

There is a demand for more sophisticated research on the nature of intelligence (Eckland) and attempts to break away from the conventional scientific wisdom are applauded (White). While some agree that the IQ is a useful tool (Zach, Dobzhansky), others feel that it cannot be used to determine the genetic inferiority of a group. Still others feel IQ is no indicator of success (Cohen, Jencks), and raising IQs will not solve the racial problem (Jencks).

Some psychologists agree with Jensen that current concepts about education must be investigated (Elkind) and that new educational techniques must be

devised to raise the cognitive levels of under-privileged children (Hunt).

One writer (Jencks) suggests that genetic engineering may be more "practical" than social engineering. Shockley (in section II) believes it is the only way.

Bibliography

18. Elkind, David, "Piagetian and Psychometric Conceptions of Intelligence." Harvard Educational Review, Vol. 39, Spring 1969, pp. 319-337.

In the Piagetian view, of which Elkind is an exponent, intelligence is an adaptation combining genetic endowment and physical and social experience. There are "optimal periods" for certain mental developments and these are not necessarily in the pre-school years. This may account for the fact that there are no long-term effects stemming from either preschool instruction or classroom enrichment. Elkind agrees with Jensen that "controversial facts" about education and its psychology should be explored.

Professor of psychology at the University of Rochester.

19. Hunt, J. McV., "Has Compensatory Education Failed? Has It Been Attempted?" Harvard Educational Review, Vol. 39, Spring 1969, pp. 278-299.

Intelligence is not hereditary to the degree Jensen would have us believe. Sustained deprivation within an environment will stunt the growth of cognitive

and conceptual skills and compensatory education can be remedial. Hunt agrees with Jensen, however, that educators should not be locked into "middle-class" educational methods, and recommends the exploration of techniques utilizing associative methods (learning by rote as opposed to cognitive techniques) for dealing with disadvantaged children.

Professor of psychology and education at the University of Illinois.

20. Jencks, Christopher, "What Color is IQ? Intelligence and Race." New Republic, Vol. 161, September 13, 1969, pp. 25-29.

The fact that black children do worse than white children of the same socioeconomic level on IQ and achievement tests is no proof of genetic difference. It may be proof that their performance on intelligence tests is determined by the way they are treated at home.

"Jewish children," Jencks writes, "also do better on IQ tests than Christians at the same socio-economic level, but very few people conclude that Jews are genetically superior to Christians. Instead, we conclude that Jews treat their children differently from Christians, even when their occupations, incomes, and education are the same." Whatever the origin of the IQ, Jencks hypothesizes that it plays a minor role in the determination of a person's success. Furthermore, raising black IQ's will not solve America's racial problems.

Associate professor at the Harvard Graduate School of Education.

21. De Fries, J. C., "Quantitative Aspects of Genetics and Environment in the Determination of Behavior." In: Genetics, Environment and Behavior. (Lee Ehrman, Gilbert S. Omenn and Ernst Caspari, eds.) New York: Academic Press, 1972, pp. 6-17.

Correcting Jensen's statistical computations, DeFries indicates that the figure of heritability of intelligence (mean .8) is an overestimate. He argues that IQ data demonstrating a high within-group heritability do not prove that observed differences between the IQ means of Afro-Americans and Caucasians are also heritable.

Associated with the Institute for Behavioral Genetics at the University of Colorado.

22. Eckland, Bruce K., "Comments on School Effects, Gene-Environment Covariance, and the Heritability of Intelligence." In: Genetics, Environment and Behavior. (Lee Ehrman, Gilbert S. Ommen, and Ernst Caspari, eds.) New York: Academic Press, 1972, pp. 297-306.

The principal point made is a caution against interpreting correlating variables as causal variables in the nature-nurture controversy. Eckland feels that a more sophisticated methodology is needed to identify the genetic and/or environmental components of intelligence.

Professor of sociology at the University of North Carolina, Chapel Hill.

23. Erlenmeyer-Kimling, L., "Gene-Environment Interactions and the Variability of Behavior." In: Genetics, Environment and Behavior. (Lee Ehrman, Gilbert S. Omnen, and Ernst Caspari, eds.) New York: Academic Press, 1972, pp. 181-208.

While the genetic theory of heritability must be taken seriously, this psychiatrist suggests that there is a definite interplay between genes and environment and that neither components are fixed but vary according to the individual.

Psychologist at New York State Psychiatric Institute.

24. Richardson, Ken and Spears, David, eds., Race and Intelligence. Baltimore: Penguin Books, 1972.

British social and biological scientists contribute to the debate generated by Jensen's 1969 article. The book has three parts: the first deals with the nature of intelligence, its development and relationship to school progress; the second discusses the genetics of IQ and intelligence and environmental influences on brain growth; the third deals with the social world as a setting for intelligence and education. In the introductory essay, "The Context of the Debate," Liam Hudson sets the mood:

> Not all who argue for the influence of human genetics are racists; not all who argue for the environmental point of view are mindless egalitarianists. There exists a middle ground, and in the United Kingdom at least, it is still possible that questions of race and intelligence can be

pursued as possessing a certain academic interest in their own right. The evidence collected so far strikes most commentators as circumstantial, to say the least. But the possibility remains that racial and social groups do differ in their intellectual potentialities, and that some clearer idea of the causes underlying these differences may be reached.

Professor of educational sciences at Edinburgh University.

25. Cohen, David K., "Does IQ Matter?" Commentary, Vol. 53, April 1972, pp. 51-59.

Until environmental differences have become a thing of the past for at least some blacks, respectable research cannot be done on the sources of the racial IQ gap. Little attention has been paid to what IQ means; it is not the "central criterion for distributing the good things of life." Cohen refers to studies indicating that IQ has no independent relation to occupational success. Schooling is a greater determinant of adult success than IQ, and as education becomes increasingly universal the conception of education as meritocratic loses its meaning.

Professor of education and Director of the Center for Educational Policy Research at Harvard University.

26. White, Elliott, "Genetic Diversity and Political Life: Toward a Populational-Interaction Paradigm." Journal of Politics. Vol. 34, November 1972, pp. 1203-1242.

White's paradigm is a critique of the environmentalist bias. He regards the idea of equality of ability

as a myth, stating, "Heritability of intelligence is an empirical fact. Its precise value is as yet uncertain if not unknown, but to forswear it as a factor in intelligence is only to delude oneself." The concept of genetic diversity does not necessarily imply any form of racism.

There is "the influence of biological factors in political and social life and ...the presence of both genetic and environmental diversity. Those two taken together provide an emendation to the conventional wisdom which seeks only uniformities in its efforts to understand the social universe."

Professor of political science
at Temple University.

27. Jencks, Christopher, et. al., Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books, 1972.

One chapter is concerned with what IQ measures: the ability to manipulate words and numbers, assimilate information, make logical inferences, and so forth. Of eugenics Jencks says, "Genetic engineering may prove considerably more practical than social engineering."

The variables which affect cognitive skill are, by magnitude of effect, as follows: (1) genetic difference, (2) environmental difference, (3) economic status, (4) length of schooling, (5) elementary school difference, (6) high school difference, and (7) racial and socio-economic segregation in the schools.

28. Bodmer, Walter and Cavalli-Sforza, Luigi Luca,"Intelligence and Race." Scientific American., Vol. 228, October 1970, pp. 15, 19-29. Reprinted in: Environment, Intelligence, and Scholastic Achievement. Compilation of Testimony. Washington, D. C.: U. S. Government Printing Office, 1972.

Bodmer and Cavalli-Sforza view intelligence tests as "...at most, tests of achieved ability." They assert that IQ is influenced by a combination of multi-genetic components and an environmental component.

Heritability estimates of intelligence can only apply to the group being studied, and estimates applied from one population to another or for that matter, to the same population in different environments, cannot be correct. Jensen's comparison of IQ levels of blacks and whites is called invidious (and statistically unacceptable).

Professor of genetics at University of Oxford (U. K.).

Professor of genetics at Stanford University Medical Center.

29. Gottesman, Irving I., Statement to U. S. Senate Select Committee on Equal Educational Opportunity. In: Environment, Intelligence, and Scholastic Achievement. Compilation of Testimony. Washington, D. C.: U. S. Government Printing Office, 1972.

Difference in mean IQ between black and white "populations" does not suggest genetic inferiority per se. Recent tests have shown that when blacks and whites are matched for socioeconomic variables in the same environment their IQ's are almost identical (within five per cent probability of error). The degree of genetic determination of IQ scores is generally high but this is only true for

the population being tested at a particular time and in a particular environment.

Professor of psychology at University of Minnesota.

30. Zach, Lillian, "The IQ." Today's Education (NEA Journal), Vol. 61, September 1972, pp. 40-68.

Of Jensen, Zach writes: "Despite its incendiary qualities, the Jensen paper has the major merit of reminding us that we are dealing with a biological organism and that the educational environment is only one of the many influences affecting the growth and development of a given individual." The weakness of heritability data, she states, is that it can only tell what proportion heredity contributes to the variance of a specified trait in a given population under existing conditions. The data cannot tell us the reason for a given child's low intelligence, the origin of ethnic differences in test performance, or what educational intervention programs can accomplish.

Associate professor of education and psychology at Yeshiva University.

31. Mercer, Jane R., and Brown, Wayne Curtis, "Racial Differences in IQ: Fact or Artifact?" In: The Fallacy of IQ. (Carl Senna, ed.) New York. The Third Press, 1973, pp. 56-113.

While studying IQ tests in relation to the detection of mentally retarded children, Mercer and Brown noted that minority children (blacks and Mexican-Americans)

represented three to four times their predicted proportion of mental retardates. The disproportionate number of retardates in minority populations caused Mercer and Brown to formulate this hypothesis.

> Differences in intelligence test scores among individuals within a particular ethnic-cultural group are the result of the interaction of both genetic and environmental factors but differences between the average IQ test scores of different ethnic-cultural groups can be accounted for entirely by environmental factors.

Mercer and Brown's studies indicate that minority children possessing similar socioeconomic background as white children performed as well on IQ tests.

> Members of sociology department at University of California, Riverside.

32. Jencks, Christopher, "Inequality in Retrospect." Harvard Educational Review, Vol. 43, February 1973, pp. 138-164.

Jencks asserts that the empirical data found in his book[12] are factually accurate, but he retracts some of his conclusions and some of the definitional data that helped form those conclusions, explaining that he may have been too hasty or too inflexible in defining the measures of school quality, cognitive skills, and IQ genotype. He declares his position is exactly opposite to that of Jensen since he attributes black-white differences to environment

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12. See item 27.

not genes. But he does not repudiate his earlier statement that genes account for about 45 per cent of cognitive abilities.

33. Dobzhansky, Theodosius, Genetic Diversity and Human Equality. New York: Basic Books, 1973.

Dobzhansky writes:

> Genes have determined the intelligence of a person only in the particular sequence of environments to which that person has been exposed in his upbringing and life experiences. What actually develops is conditioned by the interplay of the genes with the environment.

Dobzhansky sees IQ as a statistically valid predictive tool, to be used as a guide in educational needs, but feels that it has little other value. "Heritability studies" are only applicable to the specific population studied and cannot be extrapolated (with any reliability) for other populations.

The genecticist remains largely unconvinced by the results of Jensen's studies, favoring the Scarr-Salapetek findings drawn from a massive study done in Philadelphia,[13] which suggest that a disadvantaged environment may inhibit the genotype from self-actualizing. He agrees with those who suggest that environmental disadvantages were compounded over centuries in the black

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13. See item 7.

population and cannot be mitigated by a generation of so-called "equality."

Professor emeritus at Rockefeller University and adjunct professor at the University of California, Division of Genetics.

THE POLICY AND MORALITY DEBATE

The larger issue which divides opinion in the heredity environment controversy is that of the right of the scientist to his freedom of choice in research subjects as opposed to the limitation of such freedom in the interests of a just social policy.

Whereas the National Academy of Sciences opts for the right of the individual scientist to pursue an investigation of hereditary influences, the Society for the Psychological Study of Social Issues fears that statements linking heredity and intelligence may be harmful to social policy.

Political leftists (McClelland, Chomsky, Bowles, Gintis, Social Policy, PL, Psychology Today) tend to regard the study of the hereditary components of intelligence as a conspiracy of the capitalist class to keep the lower classes submerged. IQ tests are described as a symptom of "ruling class culture," as an "elitist

mechanism," as an attempt to "blame the victim," and as a deliberate maneuver to divide the labor movement through the educational system. Or they are seen as an exclusionary tactic, used at one time by immigration authorities, now by educators (Kamin).

The right-wing Mankind Quarterly is all for heredity studies and admission of racial differences. Other scientists caution against excessive reliance on the IQ.

On the educational issue per se, Jensen and Eysenck feel special education programs should be devised for those of lower IQ. Colman and Epps call for programs which will improve environmental factors or which will initiate research into curricula related to the life styles of underprivileged children.

Black psychologists and other academicians are not unanimous in their assessment of the IQ. Those who respond to Jencks in the Harvard Educational Review see the revival of the Jensen hypothesis of black-white intelligence differences as a possible deterrent to efforts to find solutions for educational inequality. Kenneth Clark sees the media use of social science findings as a "sophisticated form of white backlash." But Sowell sees the IQ as being necessary, especially for blacks, in the determination of intellectual capacity.

"we must not accord any kind of treatment to a person because of his membership in a group but only in terms of his individual characteristics and his own merit." Current educational procedures are too uniform or standardized; many tracks of learning should be geared to individual differences. This would be a way of overcoming possible hereditary disadvantages.

In general Jensen points out that the most favorable reactions to his hypothesis come from biologists and geneticists, the least favorable from sociologists and anthropologists.

36. S. P. S. S. I. Council Statement on Race and Intelligence. Journal of Social Issues, Vol. 25, Summer 1969, pp. 1-3.

The Council of the Society for the Psychological Study of Social Issues, responding to the issues raised by Jensen, took the following stand:

> As behavioral scientists, we believe that statements specifying the hereditary components of intelligence are unwarranted by the present state of scientific knowledge.... We believe that such statements may be seriously misinterpreted, particularly in their application to social policy.

37. Hudson, Liam, "Intelligence, Race and the Selection of Data." Race,[15] Vol. 12, January 1971, pp. 283-292.

"Psychologists' presuppositions can influence the research they do, the analysis they perform, the conclusions they reach." The manner in which Jensen went

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15. Published by the Institute of Race Relations, London.

Both Sowell and Coleman take their fellow social scientists to task for skirting the basic moral question of why social inequality persists in America.

Bibliography

34. Cronbach, Lee J., "Heredity, Environment, and Educational Policy." Harvard Educational Review, Vol. 39, Spring 1969, pp. 338-349.

Cronbach feels that Jensen is assigning disadvantaged children to the barren wasteland of an unfulfilled repressed life since "associative learning" as prescribed by Jensen for genetically disadvantaged children will confine their life style to the boring routine of automatons.

Professor of education at Stanford University.

35. Jensen, Arthur R. (Interview), "An Embattled Hypothesis." The Center Magazine,[14] Vol. 2, September 1969, pp. 77-80.

Responding to questions regarding his hypothesis that there are genetic racial differences in intelligence, Jensen stresses that "the degree of probability with which racial genetic differences can be stated today is not adequate as a basis for policies to deal with racial issues." He sees the need for more and better research on the genetic aspects of racial differences and environmental components. He asserts that while one must study group differences,

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14. Published by the Center for the Study of Democratic Institutions.

about his research shows discrepancies in the way data is reported or interpreted. Hudson objects to Jensen's making use of certain disease patterns because they are "compatible with his own interpretation." Thus he concludes: "When we are ideologically engaged, we attend only selectively."

Professor of educational sciences at the University of Edinburgh.

38. Recommendations with Respect to the Behavioral and Social Aspects of Human Genetics. Proceedings of the National Academy of Sciences, Vol. 69, January 1972, pp. 1-3.

An ad hoc committee of the Academy was asked in October 1969 to recommend action to the membership regarding the study of hereditary aspects of natural human quality problems. The report submitted by the committee stressed the necessity for studying genetic factors in human behavior, stating: "To maximize individual potentials, we should learn at least the main features of the interactions of genetic and environmental factors in the formation of important capacities." The committee recognized the fact that support and encouragement in this field has been less than the importance of the subject warrants, and pointed out that unless "qualified research" is conducted, persons with "extra-scientific" motives would dominate the field.

Of the basic principle in question, the report has this to say:

> The freedom to pursue scientific thought and investigation without hindrance because of fear that the results may be misused or because the conclusions may be unpalatable to many is a right that ought to be upheld by every individual scientist and every organized body of scientists. Investigation of the nature and significance of individual, populational and hereditary differences in the human species is a proper and socially relevant scientific subject. The freedom to pursue such investigation should be protected, and, to the extent to which methodology gives promise of reasonable progress, the investigation itself should be encouraged.

39. "IQ and Race" (Symposium). The Humanist, Vol. 32, January/February 1972, pp. 4-18.

Several writers in the field of race and intelligence were asked to respond to the position of David McClelland, Harvard psychologist, who holds that IQ tests are unreliable as measures of intelligence, that they are in fact "part of an elitist mechanism to discriminate against the disadvantaged." He refuses to accept the validity of the thesis that IQ test results reflect a genetic component of intelligence, since genetic components interact with environmental components.

Jensen discusses "The Ethical Issues" of the IQ controversy, claiming that what "is at issue is the freedom of scientists to inquire and publish even on topics considered sensitive in a moral and political milieu."

Richard J. Light and Jerome Kaplan of Harvard question the validity of IQ as the sole measurement of intelligence; they believe the subject is too complex to be investigated with existing tools. Kenneth E. Clark, Dean of the College of Arts and Sciences at the University of Rochester, defends the testing of ability as socially useful, but believes there is overemphasis on IQ results.

40. Social Policy, Vol. 3, May/June 1972.

The major portion of the issue is devoted to "The New Assault on Equality," title of the lead article (S. M. Miller, Director of the Urban Center at New York University, and Ronnie Steinberg Ratner, research associate), and an editorial interpretation of the thrust of recent writings by such social scientists as Glazer, Moynihan, Banfield, Herrnstein and Kristol. These writers are alleged to have despaired of equality and seem, according to Social Policy, to be saying such things as: "There is nothing wrong with America that lowering our aspirations won't solve." Or, "Blame the victim."

Jensen's hypothesis regarding the genetic component of IQ is seen as reflecting the "blame the victim" attitude. A number of studies disputing Jensen's findings are cited and the authors conclude: "Have we come to the genetic limits of progress for Blacks?

There is no evidence that we have. The equality assaulters, on the other hand, do provide worrisome evidence to suggest that we have come to the limit of the social acceptability of Blacks attaining better positions!"

41. Chomsky, Noam, "I.Q. Tests: Building Blocks for the New Class System." Ramparts, Vol. 11, July 1972, pp. 24-30.

Chomsky, commenting on Herrnstein,[16] dismisses the possibility that heritability of IQ might be important to educational practice.

He specifically questions the "degrading and brutal" assumption that people work only for gain in wealth and power, which he labels "capitalist ideology" and "behaviorist doctrine," not supported by scientific evidence. In a socialist society, prople would be more inclined to work at what is "intrinsically rewarding."

While Chomsky does not feel Herrnstein's arguments are racist, he does feel they can be "adopted by the privileged" to justify their privilege on grounds that they are being rewarded for their ability. He also thinks it essential to consider the social consequences of research because scientific curiosity is not an absolute value and the undertaking of the inquiry "will reinforce some of the most despicable features of our society."

Professor of linguistics at Massachusetts Institute of Technology.

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16. See item 6.

42. "IQ Abuse." Psychology Today; Vol. 6, September 1972, pp. 37-99.

Three articles appear under the above collective title: one is "IQ: The Conspiracy," another, "IQ: The Lethal Label," and the third, "IQ: The Racial Gap."

The conspiracy theme is developed by John Garcia,who defines IQ testing as a "covert contract to define core-curriculum scholastic ability and ruling class culture," used by such people as Jensen, Herrnstein, and Schockley as part of a "conspiracy to make a narrow, biased collection of items the real measure of all persons."

The lethal label of retardation is stamped on thousands of black and Chicano youngsters, according to Jane R. Mercer, because IQ tests are culture-loaded for the "Anglo-middle class."

Peter Watson ascribes the racial gap in test results in some degree to effects of the race of the tester, kinds of test instructions, and different expectations of success. But he concedes that these do not entirely explain the gap and concludes that while there may also be genetic differences, the over-riding factor is "the psychological burden of racial hostility."

Garcia - Professor of psychology at University of Utah.
Mercer - Associate professor of sociology. University of California, Riverside.
Watson - psychologist on staffs of Tavistock Clinic and Institute of Race Relations, London.

43. Colman, Andrew M., "Scientific Racism and the Evidence on Race and Intelligence." Race, Vol. 14, October 1972, pp. 137-153.

Colman responds to Jensen and Eysenck, whose hypotheses regarding the genetic factor of IQ he regards as based on "highly circumstantial evidence." He cites a 1935 study on racial admixture, which concluded that the IQ scores of blacks bear no relation whatever to percentage of white ancestry, as scientific evidence of the fallibility of the genetic theory. He alludes to compensatory programs which have succeeded in lifting IQ scores for a period of time. Colman feels justified in applying the term 'scientific racism' to their [Jensen and Eysenck] writings, because they contain pseudo-scientific dogmas which can be used, and have been used, to legitimate racially oppressive policies, notably in South Africa."

Lecturer in psychology at University of Leicester.

44. Eysenck, H. J., "The Dangers of the New Zealots." Encounter, December 1972, pp. 79-90.

Defending his book The IQ Argument, Eysenck says its purpose was not only to examine what "the evidence says about the causes of the undisputed Negro inferiority on IQ tests" but also to ask, "assuming that genetics play an important part," what shall society do with the problem of those of "innate limitations." He urges that social

scientists recognize the possibility of the genetic factor in attempting to solve educational problems.[17]

45. Resolution on Scientific Freedom. Encounter, Vol. 39, December 1972, pp. 88-89.

Fifty scientists from a variety of fields, including a number of Nobel laureates, deploring attacks on colleagues who deal with the role of heredity in human behavior, joined together to assert their belief that hereditary influences in human behavior are strong and to urge the academic profession to "insist upon the openness of social science to the well-grounded claims of bio-behavioral reasoning."

46. Bowles, Samuel, and Gintis, Herbert, "IQ in the U. S. Class Structure." Social Policy, Vol. 3, Nov/Dec. 1972 and Jan./Feb. 1973 (Special Double Issue), pp. 65-96.

Heritability of IQ is largely irrelevant to an understanding of poverty, wealth, and inequality of opportunity in the United States. IQ is not a causal antecedent of economic success but an "excuse" to legitimize the social institutions that stratify society. The authors see IQ as a conspiracy of capitalism which reinforces social position within society by legitimizing

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17. The London Times, May 9, 1973, reported that Eysenck was physically attacked by students when invited to speak at a meeting of the Social Science Society at the London School of Economics. Subsequently it was discovered that the students who participated in the attack were members of a left-wing political group at Birmingham University.

a caste system (and dividing labor) through the educational system.

Assistant professor of economics; research associate at the Center for Educational Policy Research, Harvard University.

47. Epps, Edgar G., "Racism, Science, and the IQ." Integrated Education, Vol. 11, January/February 1973, pp. 35-43.

Shockley's theories on racial differences are labelled "scientific racism" and Jensen's and Shockley's pronouncements are said to provide school personnel and policy makers with "an excuse for systematic discrimination against minority groups and poor children." The author believes the social harm of testing is so great "that it outweighs the educational value of the tests where minority groups are concerned." Urging the discontinuance of the heredity vs. environment debate, he recommends "research into the problem of making the corriculum more closely related to the life styles of the minority-group and poor children."

Professor or urban education at University of Chicago.

48. Adams, Dale C., "Farewell to Behaviourism." The Mankind Quarterly, Vol. 13, January-March 1973, pp. 174-180.

Adams reviews "the intellectual journey of Jensen through the wasteland of behaviorism in his pre-critical stage before he jolted the United States recently with hereditarian criticism of the psychology which underlies the present social and political programs."

This journal, devoted to subjects of race and heredity, is known for its right-wing inclinations and concern for the "decline of breeding in the upper levels of society." The article champions Jensen's views on heritability of intelligence and hopes "the United States may finally be ready to examine facts honestly."

49. Edmonds, Ronald, et. al., "A Black Response to Christopher Jenck's Inequality and Certain Other Issues." Harvard Educational Review, Vol. 43, February 1973, pp. 76-91.

The authors accuse Jencks of playing racist politics with his theories on education. The particular issue under fire is Jencks' revival of the Jensen hypothesis, i.e. it is conceivable that there is a genetic basis for the differences in black-white mean IQ scores. These writers assumed that the IQ issue had burned itself out by effective criticism of the genetic argument and object to Jencks stirring the ashes. They see the re-opening of the Jensen argument as untimely and destructive of helpful solutions to educational inequality.

Edmonds - Social science research, Harvard University.
James Comer - Associate professor of psychiatry at Yale University.
James M. Dyer - Executive assistant at the Carnegie Corporation of New York.
William Hall - Assistant professor of psychology at Princeton University.
Robert Hill - Director of Research Department of National Urban League.
Nan McGehee - Associate professor of psychology at the University of Illinois at Chicago Circle.
Lawrence Reddick - Professor of history at Temple University.

Howard F. Taylor - Associate professor of sociology at Syracuse University.
Stephen Wright - Vice President of the College Entrance Examination Board.

50. Clark, Kenneth B., "Social Policy, Power, and Social Science Research." Harvard Educational Review, Vol. 43, February 1973, pp. 113-121.

The psychologist whose social-science findings were a contributing factor to the 1954 U. S. Supreme Court decision outlawing segregated schools takes a pessimistic view of current social findings regarding educational performance of minority-group children.

Even the "seemingly more liberal and contemporary environmentalist explanations are as fatalistic in terms of positive educational change for minority-group children as...the more obvious theories of racial inferiority." And he sees the new Jencks book[18] as "closing the circle of doom" by suggesting "the inherent meaninglessness of the schools."

The focus of the critique centers on the eagerness of the mass media (with the consent of some social scientists) to publicize findings before they are sufficiently reviewed by other social scientists. This Clark calls an "arrogant demeaning of contemporary social science," saying it is possible to interpret "the tight, interrelated pattern of social-science cant as a sophisticated form of white backlash...."

Director, Metropolitan Applied Research Center, New York City.

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18. See item 27.

51. Coleman, James S., "Perspectives on Inequality." Harvard Educational Review, Vol. 43, February 1973, pp. 129-137.

The author of the landmark analysis of American education, Equality of Educational Opportunity, 1966, finds fundamental difficulties with the Jencks book.[19]

He criticizes the approach which looks to equality of opportunity as if it were a possible ideal, asserting that, "A society cannot make an implementable decision to create equal opportunity for all children within it. For one thing, the fact that each person begins life with a set of private resources, genetic and environmental...means that in the absence of public resources, children have quite unequal opportunities." To counter this inequality publicly, resources provided for disadvantaged children should be genetic as well as environmental--an obviously impossible solution.

Coleman points out that no one in the Jencks volume has alluded to the gaps in scientific knowledge about personal attributes other than cognitive skills and education level--for example, "social skills, entrepeneurial skills, managerial capability, ability to mobilize one's resources toward an end." And finally, he faults these social scientists for a "lack of attention to the deeper questions of moral philosophy surrounding the existence of inequality in society."

Professor of social relations
at Johns Hopkins University.

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19. See item 27.

52. Herrnstein, R. J., "On Challenging an Orthodoxy." Commentary, Vol. 55, April 1973, pp. 52-62.

The Harvard psychologist, in an earlier article,[20] recounted the history of intelligence testing and put forth a hypothesis regarding the heritability of IQ and its social-class differences. The article drew an inordinate amount of criticism, because word got around that Herrnstein was claiming genetic racial differences. What followed publication of the article was not merely criticism but a protracted series of disruptive actions by leftist students and other campus figures which denied to Herrnstein opportunities to present his views in a dispassionate, rational atmosphere.

Here Herrnstein reaffirms his belief that "the heritability of IQ has doubtless become psychology's best proved, socially significant empirical finding," and his thesis that "the more society equalizes opportunity, the more it will tend to drive the heritability higher, making genetic factors progressively more important."

53. "Eugenics: The Survival of the Bosses Revolution: The Survival of the Workers." PL, Vol. 9, April 1973, pp. 78-79.

The magazine of the Progressive Labor Party, which describes itself as a revolutionary communist movement, presents a telescoped radical-version history of the "pseudo-

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20. See item 6.

science of eugenics," starting with Charles Darwin and climaxing with Jenkins-Herrnstein-Banfield-Jencks. The theme is that genetics is a "racist" invention of the bosses designed to crush the working class, that scientists who claim to be doing objective research in genetics and heritability are merely tools of the capitalist system.

Another article in this issue is titled "The Racist Thought of Christopher Jencks: Luck and Personality Explains All."

54. Sowell, Thomas, "The Great IQ Controversy." Change, Vol. 5, May 1973, pp. 33-37.

A black social scientist criticizes Jensen's main thesis, the role of heredity in mental abilities, but also takes issue with the "pervasive egalitarianism in the sociological and psychological literature," which does not deal with the real fact that blacks are generally considered intellectually inferior by many whites. Sowell feels that critics of Jensen, instead of "moralizing or pettifogging", should be counter-reacting with alternative research findings.

To a degree, Sowell defends Jensen, pointing out that the latter has never argued for "writing off black children as unteachable" but rather has called for revisions in teaching techniques. He defends the use of IQ and college-entrance tests, as well as other competitive selection devices, because at this stage of social devel-

opment it is the best method of selecting the most qualified students. "It is precisely the black students who need IQ tests most of all, for it is precisely with black students that alternative methods for spotting intellectual ability have failed."

Economist at Urban Institute, Washington, D. C.

55. Kamin, Leon, Presentation made at Southern Regional Council Symposium on "Human Intelligence, Social Science and Social Policy." South Today, Vol. 4, May-June 1973, pp. 1-5, and Vol. 4, July 1973, pp. 6, 10.

At the first session Dr. Kamin takes issue with the conclusions of Herrnstein, Jensen, and Scarr-Salapatek by calling attention to the "poverty of empirical and procedural background" of their studies and earlier ones on which they drew. There is detailed citation of technical weaknesses in studies of intelligence by British, American, and Danish social scientists. The second session is devoted to an exposure of early uses of IQ testing to exclude European immigrants of certain "racial stock" from the United States. "This was largely rationalized on the basis that the tests of innate ability developed by psychologists had clearly demonstrated, in study after study, that Italians, Poles, Russians and Jews scored 25 or 30 points lower than the Nordics from northwestern Europe." He concludes that current data on IQ testing will "look just as absurd in 50 years."

Psychologist at Princeton University.

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